

HFUS3 90U 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 325

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 NOV 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100Z TO 20/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4597 (N19W19) CONTINUED TO GROW IN ALL PARAMETERS. IT EVOLVED INTO A DAO (WHITE-LIGHT CLASSIFICATION) BETA-TYPE WITH STRONG ARCHED FILAMENT SYSTEMS THAT PROBABLY WERE COINCIDENT WITH A B1 X-RAY EVENT AT 20/0540Z. SURGING WAS REPORTED THROUGHOUT THIS TIME THAT HAD A 245MHZ RADIO BURST OF 2900 SFU AND 2695MHZ BURST OF 24 SFU. PRIOR TO THIS AT 0121Z, A THREE DEGREE LONG FILAMENT DISAPPEARED WITH A 245MHZ BURST OF 88 SFU. THE REGION CONTINUED SURGING WITH ARCHED FILAMENTS THE REMAINDER OF THE PERIOD. REGION 4598 (S12E70) ALSO WAS A BETA-TYPE (DSO WHITE-LIGHT CLASSIFICATION) WITH ITS SINGLE TRAILER SPOT ROTATING INTO SIGHT FOLLOWING ITS SINGLE LEADER. EXCEPT FOR ONE SMALL SURGE MIDWAY IN THE PERIOD, ONLY AN ACTIVE DARK FILAMENT SOUTH OF THE LEADER SPOT PERSISTED IN THIS REGION. POINT BRIGHTENINGS ALONG THIS ACTIVE FILAMENT CORRELATED TO A 245MHZ RADIO BURST OF 830 SFU AT 1801Z. NO NEW REGION WAS ASSIGNED. ANOTHER SMALL FIVE DEGREES LONG FILAMENT THAT FORMED OVERNIGHT AT S19W10 PARTIALLY DISAPPEARED AT 1909Z.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGION 4597 PROVIDES ONLY A VERY SLIGHT CHANCE OF SIGNIFICANT ACTIVITY. RETURNING REGION 4588 (N02, CAR-020) PRODUCED NO OPTICAL NOR X-RAY EVENTS DURING ITS LAST ROTATION BEFORE IT DECAYED TO A FAINT, SPOTLESS PLAGE SEVERAL DAYS BEFORE CROSSING THE WEST LIMB. IT IS PREDICTED TO REAPPEAR AT 22/1400Z.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: GEOMAGNETIC ACTIVITY WAS ACTIVE. BRIEF STORM LEVELS WERE REPORTED AT HIGH LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE ACTIVE. BRIEF STORM LEVELS ARE EXPECTED AT HIGH LATITUDES DURING LOCAL MID-NIGHT PERIODS.

III. EVENT PROBABILITIES 21 NOV-23 NOV

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 NOV 077

PREDICTED 21 NOV-23 NOV 077/077/077

90 DAY MEAN 20 NOV 076

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 NOV 018/019

ESTIMATED AFR/AP 20 NOV 018/022

PREDICTED AFR/AP 21 NOV-23 NOV 015/020-013/015-012/015

SOLTERWARN

RT